REMARKS

Remarks

1. Introduction

Claims 12-44 are pending.

2. Rejection based on Johnson reference

Claims 12-15, 18, and 30-33 were rejected under 35 U.S.C. §102(b) as being anticipated by the Johnson Amplification reference. As noted in the background section of the specification, the Johnson Amplification is a modeling amplifier that allows a user to simulate using two different classic amplifiers at the same time. The modeling signal processor has the same amplifier modeling effects as a modeling amplifier but does not contain any power amplifier or loudspeakers. The modeling system as disclosed in the Johnson reference allows a guitarist to get the sound of a "classic" amplifier faster by combining many control parameters into a single "model select" control. However, it significantly reduces the number of possible sounds that can be achieved since the user is limited to the models provided by the product. Further, even if a modeling amplifier, such as the one disclosed in the Johnson reference, can perfectly recreate the original amplifiers, the tonal characteristics can only be as good as the original amplifier. Thus, by only modeling known physical systems, the resulting model does not take advantage of tones that can be created without the physical constraints imposed by the materials and components used to construct these systems. Since the tones are based on mathematical models, the result is the output from the digital signal processor of a product such as the Johnson amplifier will sound identical. The net result of this is that

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musicians have a dramatically reduced number of tonal possibilities to choose from and that the music being performed or made with these products is less likely to be tonally diverse.
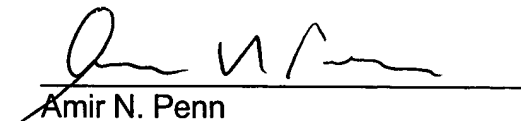
In contrast to the Johnson amplifier, one aspect of the present invention as claimed in claim 12 comprises generating first and second simulation models and warping between the first and second simulation models using a model generator. The result is a generated simulation model. Because of this (and in contrast to the Johnson amplifier), the system provides the musician with numerous mathematical model options. Therefore claim 12 and the claims that depend thereon are patentable over the cited art.

Further, in contrast to the Johnson amplifier, another aspect as claimed in claim 36 includes simulating cabinet speaker effects. For example, one of the effects that may be simulated is a cabinet simulation model that is a function of the sampling rate of the processing of the audio signal. The Johnson reference fails to teach or suggest the cabinet simulation model as claimed including simulating an effect of a change in the sampling rate. See pg. 59-60 of the Johnson reference. Therefore claim 36 and the claims that depend thereon are patentable over the cited art.

3. Conclusion

Applicants respectfully submit that pending claims 24-58 are allowable. If any questions arise or issues remain, the Examiner is invited to contact the undersigned at the number listed below in order to expedite disposition of this application.

Respectfully submitted,

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